AMENDMENTS TO THE SPECIFICATION

In the Specification

Please substitute the following amended paragraph(s) and/or section(s) (deleted matter is shown by strikethrough and added matter is shown by underlining):

Page 1, line 2, please add the following header:

Field of the Invention

Page 1, line 17, please add the following header:

Background of the Invention

Page 1, line 36 – page 2, line 6, please amend the paragraph as follows:

For a high accuracy of a laser surgery method, it is ~~indispensable~~ desirable to guarantee high localization of the effect of the laser beams and to avoid collateral damage to adjacent tissue as far as possible. It is therefore common in the prior art to apply the laser radiation in pulsed form, so that the threshold value for the power density of the laser radiation required to cause an optical breakthrough is exceeded only during the individual pulses. In this regard, US 5,984,916 clearly shows that the spatial extent of the optical breakthrough (in this case, of the generated interaction) strongly depends on the pulse duration. Therefore, high focusing of the laser beam in combination with very short pulses allows to place the optical breakthrough in a material with great point accuracy.

Page 3, line 17, please add the following header:

Summary of the Invention

Page 3, line 18 – page 3, line 26, please amend the paragraphs as follows:

According to the invention, the object is achieved by a method of the above-mentioned type, wherein the surface lattice-type array of the optical breakthroughs is made up of at least two partial lattices, which are processed ~~after each other~~ one after the other, with respect to their associated optical breakthroughs.

The object is further achieved by a device of the aforementioned type, wherein the surface lattice-type array of the optical breakthroughs is made up of at least two partial lattices, and the control unit effects focus shifting such that the partial lattices are processed one after ~~each~~ the other with respect to their associated optical breakthroughs.

Page 3, line 33 – page 4, line 5, please amend the paragraphs as follows:

he surface cut to be generated by serial arrangement of optical breakthroughs is generally a curved surface. ~~Now, on~~ On the curved surface, a regular surface lattice is defined so as to achieve uniform and preferably tight packing of zones in which optical breakthroughs are effective. In doing so, care is taken, in particular, that the spherical distance between the centers of two optical breakthroughs (also referred to as geodesic line) exceeds the distance of the locations of optical breakthroughs in space only by a maximum of 10 %. Under these prerequisites, a small area of the cut may be regarded as a planar surface portion in good approximation. Therefore, a "surface lattice-type array" is understood to be the regular

arrangement of those locations where the optical breakthroughs are initiated by focusing of the laser radiation, relative to the cut in three-dimensional space. In connection with the above-mentioned approximation, a planar surface element may be assumed at least in portions of the surface.

Page 4, line 7 – line 12, please amend the paragraph as follows:

Suitable division of the surface arrangement of the plasma bubbles into partial lattices and sequential processing of the partial lattices, i.e. first generating the breakthroughs of one partial lattice before initiating the breakthroughs of the next partial lattice, has the effect that there is always a spatial distance between two breakthroughs generated directly following each other in time. This avoids the problem that plasma bubbles of breakthroughs immediately following each other grow together. ~~Besides~~ Additionally, individual partial lattices need not be completed.

Page 4, line 14 – line 30, please amend the paragraph as follows:

As the speed at which optical breakthroughs are generated increases, plasma bubbles of optical breakthroughs which are adjacent due to the sequential arrangement of different portions of the path line may also grow together. The division of the surface lattice-type arrangement into at least two partial lattices avoids this problem, as it can be ensured by suitable selection of the partial lattices that no immediately adjacent optical breakthroughs are generated within one partial lattice. Further, a suitable selection of the partial lattices allows ~~to ensure~~ a uniform or even surface filling. In a preferred embodiment of the invention, it is envisaged that the partial

lattices be selected such that, within the surface lattice-type arrangement for at least one optical breakthrough, in at least one partial lattice, all adjacent optical breakthroughs belong to one or more of the other partial lattices. This approach will conveniently be embodied such that, for all partial lattices, the optical breakthroughs do not have an immediately adjacent optical breakthrough which belongs to the same partial lattice. By this further embodiment, the speed at which the breakthroughs are generated one after the other is limited, with respect to the problem of plasma bubbles growing together, only by the time interval between two partial lattices. Using the values for the growth and collapse of a plasma bubble as published by Heisterkamp et al., the first plasma bubbles of sequential partial lattices should be at least about 2 to 5 μs or even a few milliseconds to seconds apart.

Page 5, line 11, please add the following header:

Brief Description of the Drawings

Page 5, line 19 – line 27, please amend the paragraphs as follows:

Figure 1 ~~shows~~ is a perspective view of a patient during a laser-surgical treatment with a laser-surgical instrument,

Figure 2 ~~shows~~ depicts the focusing of a ray bundle onto the eye of the patient with the instrument of Figure 1;

Figure 3 ~~shows~~ is a schematic representation explaining a cut generated during laser-surgical treatment with the instrument of Figure 1;

Figure 4 ~~shows~~ depicts a deflection device of the laser-surgical instrument of Figure 1;

Figure 5 ~~shows~~ depicts three partial Figures 5a, 5b and 5c concerning the assembly of the cut of Figure 3 from a plurality of partial lattices.

Page 5, line 28, please add the following header:

Detailed Description of the Invention

Page 5, line 37 – page 6, line 5, please amend the paragraph as follows:

For this purpose, as schematically shown in Figure 2, the laser-surgical instrument 2 comprises a source of radiation S whose radiation is focused into the cornea 5 of the eye 1. A visual defect in the eye 1 of the patient is remedied by means of the laser-surgical instrument 2 to remove material from the cornea 5 so that the refractive characteristics of the cornea are modified by a desired amount. In doing so, the material is removed from the corneal stroma, which is located beneath the epithelium and Bowman's membrane and above Descemet's membrane and the endothelium.